REMARKS

Claims 70 through 79 are pending in this application. Claims 70 through 74 are amended herein. Support for the amendments to the claims may be found in the claims as filed originally as well as at page 15, lines 23 through 31 and page 16, lines 1 through 31 of the specification, and in Fig. 3. Reconsideration of this application in view of the foregoing amendments and the following remarks is respectfully requested.

Claim Rejections - 35 U.S.C. § 112:

Claim 73 was rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which is not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification has been amended to comport it to claim 73 as filed originally by describing a sensor as an infrared temperature sensor. Claim 73 is consequently submitted to be supported literally by the specification. Withdrawal of the rejection is earnestly solicited.

Claim Rejections - 35 U.S.C. § 102:

Claims 70, 71, 72, and 74 through 78 were rejected under 35 U.S.C. § 102(e) as anticipated by Lang et al., US 5,941,825. The rejection is traversed.

Claim 70 recites:

"wherein said central processing unit adjusts a frequency or an intensity of said ultrasound in response to a signal from said sensor."

Lang neither teaches, discloses, nor suggests a central processing unit that adjusts a frequency or an intensity of an ultrasound *in response to* a signal from a sensor, as recited in claim 70. Lang, in fact, has no use for a central processing unit that adjusts a frequency or an intensity of an ultrasound in response to a signal from a sensor since his goal is measurement of body fat using ultrasound, as described at column 1, lines 5 and 6, and particularly the adjustment of parallax error, as described at column 1, line 8. Lang, thus, has no interest in affecting the sample in any way, since he simply wants to measure it. The ultrasound method and device thus needs only be an open loop system: send ultrasound out, let it bounce, and catch it.

Lang, for example, describes a pulse as having typically a predetermined amplitude, frequency, and wave shape at column 6, lines 64 and 65, rather than a central processing unit

that adjusts a frequency or an intensity of an ultrasound in response to a signal from a sensor, as recited in claim 70. Furthermore, Lang describes a pulse as having a predetermined transmission angle at column 7, lines 34 and 35, rather than a central processing unit that adjusts a frequency or an intensity of an ultrasound in response to a signal from a sensor, as recited in claim 70. Although Lang describes a computational unit as defining or varying the firing rate and pulse repetition rate at column 7, lines 58 through 62, no mention is made of adjusting a frequency or an intensity of an ultrasound in response to a signal from a sensor, as recited in claim 70. Rather, Lang is only interested in measuring the reflected signal and using the reflected signal for image reconstruction, as described at column 7, lines 62 through 64. Finally, Lang specifies predetermined patterns of ultrasound source activation, as described at column 18, lines 16, 17, 20, 21, 42, and 43, rather than a central processing unit that adjusts a frequency or an intensity of an ultrasound in response to a signal from a sensor, as recited in claim 70. Claim 70 is submitted to be allowable. Withdrawal of the rejection of claim 70 is earnestly solicited.

Claims 71, 72, and 74 through 78 depend from claim 70 and add further distinguishing elements. Claims 71, 72, and 74 through 78 are also submitted to be allowable. Withdrawal of the rejection of claims 71, 72, and 74 through 78 is earnestly solicited.

Claims 70, 71, 72, 74, 75, and 76 were rejected under 35 U.S.C. § 102(e) as anticipated by Blank, US 5,913,826. The rejection is traversed.

Blank neither teaches, discloses, nor suggests a central processing unit that adjusts a frequency or an intensity of an ultrasound *in response to* a signal from a sensor, as recited in claim 70. Transducer array 60, rather, may be seen to be discrete in Fig. 1. Furthermore, signal processing and analysis is limited to filtering artifacts, as described at column 15, line 51, or reconstructing the filtered time domain signal for analysis, as described at column 15, lines 61 and 62, rather than adjusting a frequency or an intensity of an ultrasound in response to a signal from a sensor, as recited in claim 70. Claim 70 is submitted to be allowable. Withdrawal of the rejection of claim 70 is earnestly solicited.

Claims 71, 72, 74, 75, and 76 depend from claim 70 and add further distinguishing elements. Claims 71, 72, 74, 75, and 76 are also submitted to be allowable. Withdrawal of the rejection of claims 71, 72, 74, 75, and 76 is earnestly solicited.

Claim Rejections - 35 U.S.C. § 103:

Claim 73 was rejected under 35 U.S.C. § 103 as being unpatentable over Lang in view of Bartosiak et al. US 5,011,296. The rejection is traversed. Reconsideration is earnestly solicited. Claim 73 depends from claim 70 and adds further distinguishing elements. Lang neither teaches, discloses, nor suggests a central processing unit that adjusts a frequency or an intensity of an ultrasound in response to a signal from a sensor, as discussed above with respect to claim 70. Bartosiak mentions no ultrasound at all, and thus cannot make up for the deficiencies of Lang with respect to claim 70. Claim 73 is submitted to be allowable. Withdrawal of the rejection of claim 73 is earnestly solicited.

Claim 79 was rejected under 35 U.S.C. § 103 as being unpatentable over Lang in view of Gravlee, Jr., US 3,961,097. The rejection is traversed. Reconsideration is earnestly solicited. Claim 79 depends from claim 70 and adds further distinguishing elements. Lang neither teaches, discloses, nor suggests a central processing unit that adjusts a frequency or an intensity of an ultrasound in response to a signal from a sensor, as discussed above with respect to claim 70. Gravlee, Jr. mentions no ultrasound at all, and thus cannot make up for the deficiencies of Lang with respect to claim 70. Claim 79 is submitted to be allowable. Withdrawal of the rejection of claim 79 is earnestly solicited.

Claim 73 was rejected under 35 U.S.C. § 103 as being unpatentable over Blank in view of Bartosiak. The rejection is traversed. Reconsideration is earnestly solicited. Claim 73 depends from claim 70 and adds further distinguishing elements. Blank neither teaches, discloses, nor suggests a central processing unit that adjusts a frequency or an intensity of an ultrasound in response to a signal from a sensor, as discussed above with respect to claim 70. Bartosiak mentions no ultrasound at all, and thus cannot make up for the deficiencies of Blank with respect to claim 70. Claim 73 is submitted to be allowable. Withdrawal of the rejection of claim 73 is earnestly solicited.

Claim 79 was rejected under 35 U.S.C. § 103 as being unpatentable over Blank in view of Gravlee, Jr.. The rejection is traversed. Reconsideration is earnestly solicited. Claim 79 depends from claim 70 and adds further distinguishing elements. Blank neither teaches, discloses, nor suggests a central processing unit that adjusts a frequency or an intensity of an ultrasound in response to a signal from a sensor, as discussed above with respect to claim 70.

Gravlee, Jr. mentions no ultrasound at all, and thus cannot make up for the deficiencies of Blank with respect to claim 70. Claim 79 is submitted to be allowable. Withdrawal of the rejection of claim 79 is earnestly solicited.

Conclusion:

Accordingly, in view of the reasons given above, it is submitted that all claims 70 through 79 are allowable over the cited references. Allowance of all claims 70 through 79 and of this entire application are therefore respectfully requested.

Respectfully submitted,

By _____

Thomas E. McKiernan
Reg. No. 37,889
Attorney for Applicants
ROTHWELL, FIGG, ERNST & MANBECK
Suite 800, 1425 K Street, N.W.
Washington, D.C. 20005
Telephone: (202)783-6040

116a-amd